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ABSTRACT

This study was conducted to investigate the attrition rate among foreign language teachers, attrition being the major component in determining the annual demand for new teachers. The study extended the teacher attrition knowledge base by analyzing data from the state of Illinois' teacher workforce data base, the Teacher Service Record (TSR), which includes reasons regarding termination or leaves of absence. Data were analyzed over a period of 6 years focusing on foreign language teachers (N=982) who left downstate Illinois' (excluding Chicago) public schools during the school years between 1984-85 and 1989-90. The study examined reasons for leaving teaching; reasons for termination or leave of absence; attrition by age group; and foreign language teachers who leave and return to teaching as well as others who do not. More precise attrition studies are suggested in order better to understand how qualified foreign language teachers can be retained. (Five tables/graphs are included.) (LL)

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Why Foreign Language Teachers Leave Teaching*

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In broad terms, this study investigates the supply and demand issue of teachers through a study of attrition. Grissmer and Kirby (1987) contend: "Teacher attrition rates are important because they are the major component in determining the annual demand for new teachers. Most new teachers are hired to replace leaving teachers rather than to meet the needs of expanding enrollment, or smaller class sizes, or new programs" (p. 2). Although issues of enrollment and pupil/teacher ratios are also pertinent, this study focuses on attrition because it is the least modeled and most uncertain component of supply and demand (Grissmer & Kirby, 1987). Available data concerning teacher attrition have not been adequately utilized. Furthermore, researchers bemoan the fact that there are too few investigations that specifically deal with a teacher population of a specific academic field or discipline (Gilford & Tenenbaum, 1990; Grissmer and Kirby, 1987; Haggstrom, Darling-Hammond, and Grissmer, 1988). The intent of this investigation is to extend the teacher attrition knowledge base by analyzing data from a major state's teacher workforce data base that includes a subpopulation within an academic discipline and contains various characteristics of those foreign language teachers who leave teaching. The main objective of this investigation is to account for the attrition of foreign language teachers. Other objectives include providing trend data over a period of six years (1985-1990), presenting a report with useful data to the foreign language profession to understand teacher attrition within their academic discipline, and presenting a test of a model of attrition.

Attrition studies such as this one are particularly timely and relevant. Studies suggest the brightest and best teachers, in general, leave the profession after two or three years (Hart & Murphy, 1990; Kerr, 1984; Schlechty & Vance, 1981). In fact, Kerr contends "the best of available new teachers are not being hired and the best of experienced teachers are leaving the school" (p. 128). If this is the case, attrition studies can help explain why such phenomena occur. Additionally, other studies indicate an impending foreign language teacher shortage (Draper, 1989; Kleinsasser, 1989; National Center for Educational Statistics, 1988). For example, the National Center for Educational Statistics (1988) reports that school principals have difficulty in hiring fully qualified applicants for teaching vacancies in many academic disciplines such as physics, computer science, foreign language, and various sciences. Kleinsasser (1989) finds that a majority (80%) of states anticipate shortages in the areas of special education, mathematics, sciences, and foreign languages. His analysis further concludes that

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> If the three categories of bilingual education, English as a Second Language, and foreign languages are aggregated..... into a second language category, it would rank second in teacher shortages only to special education. (Kleinsasser, 1989, p. 11)

Finally, Draper (1989) surveys foreign language supervisors or other persons responsible for foreign languages within the education agencies of the fifty states and the District of Columbia and finds "fifty-seven percent expect shortages at the elementary level, while sixty-two percent fear the same on the secondary level. Overall, sixty-nine percent of states predict a shortage by 1993" (p. 264). If these shortages are real, schools cannot lose qualified teachers already in the classrooms; especially teachers who have acquired and use a second language. There is little information concerning why foreign language teachers, leave the profession, who they are, or what they do after departing schools' classrooms and corridors. Attrition studies can begin investigating these and other issues.

Theoretical Overview

The perspective used in this analysis relies heavily upon the theory of attrition proposed by Grissmer and Kirby (1987). The data set serves as a means to define foreign language teacher attrition at the state level and delineate voluntary and involuntary teacher attrition components along with the characteristics of those teachers who choose to leave the profession. The framework also considers the career life cycle of teachers. Grissmer and Kirby suggest the following factors that deal with voluntary and involuntary attrition. Voluntary attrition factors depend on:

- The degree of acquired occupation-specific, location-specific, and firm-specific human capital.
- The informed nature of the original job commitment and the nature of the original job search.
- The previous work and teaching experience of the teacher at entry.
- The probability of changes in marital status, family composition, and residential location after employment.
- The salary and working conditions of teachers.
- The job characteristics and wage levels of alternative opportunities both inside and outside teaching. (Grissmer and Kirby, 1987, p. 21)

Involuntary attrition decisions depend on:

- The probability that the performance characteristics of the teacher will meet some threshold level set by the school district.
- The chance of teacher layoffs, which is primarily influenced by enrollments, fiscal environment, and perhaps union rules.

- Mandatory retirement rules.

- Illness and death. (Grissmer and Kirby, 1987, p. 21)

Additionally, the perspectives of Haggstrom, Darling-Hammond, and Grissmer (1988) and Gilford and Tenenbaum (1990) influence the analysis. The former places emphasis on assessing changes by teaching level, teaching field, and geographic location; the latter offering insight concerning recommendations about the qualitative and quantitative aspects of supply and demand issues, in general, and attrition components, in particular.

Data Analysis and Data Source

Descriptive statistics serve as the basic technique for data presentation along with results of logistic regression (suggested by Haggstrom, 1983). The data were analyzed at the discipline (foreign languages) level over a period of six years. Analysis at the language specific (i.e., French, German, Latin, and Spanish) level and each school year was completed. However, the total aggregated data set produced the more interesting (and significant) findings. The focus here will be on the foreign language teachers who left downstate Illinois' (excluding Chicago) public schools during the school years between 1984-85 and 1989-90

The Illinois State Board of Education collects data annually on teachers employed in the public schools. The Teacher Service Record (TSR) serves as a data base of information about teachers and specifically asks for reasons regarding termination or leaves of absence. Other data requested include teacher's name, district, school, location, race/ethnicity, date of birth, social security number, teacher certification, annual salary, months employed, percent of time employed, years of experience (district, state, and out of state), college of baccalaureate degree, highest degree held, college of advanced degree, main position or title, grade levels, and teaching assignment or program area. Generally, data on 100,000 teachers are collected or updated every fall by the state agency (Illinois State Board of Education, 1987; 1989). Usually, administrators and secretaries of Illinois' public schools supply TSR information. This particular data base appears to be one of the more adequate data bases in the country (Haggstrom, Darling-Hammond, and Grissmer, 1988).

The state of Illinois is a microcosm of the United States. The population centers are diverse having urban, suburban, and rural characteristics. There are currently 956 school districts in Illinois characterized as elementary (K-8), secondary (9-12), or unit (K-12). Foreign language instructors teach in unit and secondary school districts.

Findings

The population and why foreign language teachers leave teaching. The population of foreign language teachers who left their foreign language teaching positions in downstate Illinois (this signals the exclusion of Chicago) between the school years 1984-85 and 1989-90

was 982. Females numbered 763 (82.2%) while men numbered 165 (17.8). The majority (93.3) of the population was white, with 1% being black and 5.7% Hispanic. All but a few (88.9%) held high school (6-12) teaching certificates while 7% held provisional teaching certificates. The majority of teachers either had a baccalaureate (53.2%) or master's (45.0) degree and a small minority had completed their doctorate (1.7%). Over half the population was reported to have had nine month contracts (59.8%) and just over one third had ten month contracts (36.4%). Teachers' major assignment was in one of four languages: French (27.4%), German (10.0%), Latin (4.1%), and Spanish (56.4%). Those assigned "other" amounted to 20 (2.2%).

On the average, downstate Illinois employs approximately 1,570 foreign language teachers per year. The average attrition rate is around 154 teachers per year. For example, during the 1984-85 school year 144 teachers left; during 1985-86 the number was 148; 163 during 1986-87; 163 during 87-88; 170 during 88-89; and 140 during 1989-90. Approximately 9.8% of the foreign language teachers from this sample decide to leave each year for one reason or another. In general, this is similar to a national attrition rate of about 10%. Interestingly, many sources of data give numbers of teachers who leave but fail to reveal any reason why they do so. The Illinois Teacher Service Record does allow for reasons to be selected and data are available to help answer the question, "Why do foreign language teachers leave downstate Illinois?" By using the voluntary and involuntary framework, a picture emerges in Table 1 concerning the population in this study. Domestic responsibility (supervision of home, moved with spouse, etc.) is the major reason for teachers who voluntarily leave teaching. Retirement and reduction in force are the leading involuntary reasons for exiting. A small percentage of the population is described as having "other" reasons.

Table 1

Reason for Termination or Leave of Absence

Other (no details) N=125 (14%)	
Involuntary Attrition N=353 (38%)	
Retired	164
Position Eliminated (Reduction in Force)	105
Filling Temporary Position	35
Asked to Resign Position by Board	24
Health	17
Death or Incapacitating Illness	8
Voluntary Attrition N=450 (48%)	
Domestic Responsibilities (Supervision of home, moved with spouse, etc.)	142
Child Care (Pregnancy)	83
Entered a Non-educational, Non-military Vocation	53
Employed in an Out of State Educational System	47
Professional Growth and Study (may include sabbatical)	42
Other Leave of Absence	34
Employed in a Different Illinois Public School System	24
Entered College for Further Study	17
Employed in an Illinois Nonpublic School System	7
Military	1

Attrition rate by age group. Grissmer and Kirby (1987) suggest a pattern of attrition rates for teachers. This pattern shows that attrition "in each year was highest for younger teachers and those with the least experience, declining through the middle years, and then increasing again during the periods of retirement eligibility" (p. 39). This horseshoe or u-shaped pattern helps explain that teacher attrition can be accounted for by normal changes in a person's life (Grissmer and Kirby, 1987). Data from this foreign language sample does not produce this type of pattern. Figure one depicts more of a roller coaster pattern with highest attrition among the age group of 36-40 (192 teachers) and the lowest in the 51-55 (49 teachers) and 56-60 (40 teachers) age group, then increasing at 61-65 (110 teachers)

before slightly decreasing with the 66+ age group (75 teachers). When compared with Grissmer and Kirby's data (see Figure 2) there are striking differences. In essence, the pattern does not follow the u-shaped design.

Insert Figures 1 and 2 here

Reasons for leaving were analyzed among age groups in order to see if there was a particular variable that emerged. The most striking factor in the 36-40 age group was the reason just about half the sample gave for leaving: domestic responsibilities, child care and having a child (47.4%). Because many couples are waiting to have children later in their married lives, this could be a pattern that would be typical for the decade of the (later) 1980s. Other than this reason; however, the other 52.6% of the sample were disbursed among the remaining options for attrition. The same findings were prevalent in the surrounding age groups. The 22-30 age group's major reason for leaving was given as reduction in force (21.2%) and domestic responsibilities (19.2%); 23.1 percent were recorded as "other." The older age groups revealed retirement as the main reason for no longer teaching. Total years of experience increased, on the average, as each age group became older. It would be interesting to further try to explore this attrition rate pattern and see if other subject specialists' patterns were similar. As will be discussed later, it would also be valuable to talk with teachers to further clarify why they leave at certain age intervals. Reasons for leaving is but one variable that can be used to understand attrition and it does offer some general notions about why foreign language teachers leave downstate Illinois. Clearly, the evidence shows almost half the sample left teaching voluntarily. These teachers chose to leave and a majority did not return, at least to downstate Illinois teaching positions. Most of these qualified foreign language teachers (and users of a second language) exited the workforce leaving a position that will be difficult to fill with other qualified second language personnel.

Some foreign language teachers who left returned to teaching. While completing the data analysis, it was discovered that some foreign language teachers did return to teaching following the years they were reported to have exited. Files were examined and 144 teachers were found to be back teaching in downstate Illinois. This group proved to be valuable for two reasons: one, it served as a sample of teachers who left and then returned and two, it served as the group to be compared and contrasted to the 784 that did not return. Table 2 reports descriptive data of these two groups within the original exited population.

Table 2

Teachers Who Did Not and Did Return to Downstate Illinois Teaching 1984-1990

Variable	Did Not Return (N=784)	Returned (N=144)
Females	81.3%	87.5%
Males	18.8%	12.5%
White/Non-Hispanic	93.0%	95.1%
Afro-American/Hispanic	7.0%	4.9%
Degree		
Baccalaureate	54.1%	48.6%
Masters	44.0%	50.7%
Doctorate	1.9%	0.7%
Institution for Baccalaureate degree		
4 year	9.8%	6.3%
6 year	19.0%	29.9%
8 year	31.8%	34.7%
Outside IL	39.4%	29.2%
Reason for Leaving		
Voluntary	47.8%	63.9%
Involuntary	38.5%	23.6%
Other	13.6%	12.5%
Months Employed		
4-5	3.3%	6.3%
9	62.2%	46.5%
10	34.4%	47.2%
Total Years Experience	12.12	10.13
Average Age	46.92	42.42
Average Salary	$20,865.42	$21,127.13

What can be readily viewed is little difference between the two groups. Therefore a logistic regression was performed to attempt to explore the variables that could help predict a model that investigated differences among these two groups. The main thrust of the logistic regression was to find intervening factors to predict attrition. Variables from the Teacher Service Record (TSR) served to explore the possibilities. The dichotomous dependant variable was attrition: those who left and remained out of downstate Illinois schools and those who left and reentered downstate Illinois schools. Most variables from the TSR were entered into the regression. Those variables that appeared to have the most significant predictability potential included months employed, institution of baccalaureate

degree, highest degree obtained, age, and geographical location. The results of the logistic regression are found in Table 3. The data fits the model with the Goodness of fit Chi Square equaling 641.925, 764 degrees of freedom, p=.999.

Table 3

Foreign Language Teacher Attrition

Variable	COEF	Standard Error	COEF/ SE	Odds Ratio	95% CI of EXP(COEF) Lower Bound	Upper Bound
Months employed						
9	0.7430	0.426	1.740	2.100	0.911	4.850
10	0.3426	0.430	0.797	1.410	0.606	3.270
Reason for Termination						
Involuntary	0.5374	0.245	2.190*	1.710	1.060	2.770
Other	0.3028	0.292	1.040	1.350	0.764	2.400
Baccalaureate Degree (institution)						
6 year	-0.7763	0.407	-1.910	0.460	0.207	1.020
8 year	-0.3616	0.398	-0.908	0.697	0.319	1.520
Outside IL	-0.0720	0.401	-0.180	0.931	0.424	2.040
Highest Degree						
Master's	-0.4711	0.208	-2.270*	0.624	0.415	0.9380
Doctorate	0.0566	1.070	0.053	1.060	0.130	8.5800
Age	0.0323	0.011	2.880*	1.030	1.010	1.0600
Geographic Location						
Region 1	1.2100	0.459	2.640*	3.360	1.360	8.250
Region 2	0.0798	0.400	0.200	1.080	0.494	2.370
Region 3	0.1397	0.317	0.440	1.150	0.617	2.140
Region 4	0.0862	0.452	0.191	1.090	0.449	2.650
Region 5	0.8689	0.637	1.360	2.380	0.682	8.330
Constant	-0.0961	0.688	-0.140	0.908	0.235	3.500

*p<.05

The significant variables that appear to predict attrition include age, reason for leaving, and geographic location. As teachers get older and decide to leave teaching, they remain outside of education. Those teachers who involuntarily leave the profession (because of retirement, reduction in force, filling temporary position, asked to resign by board, health, death or incapacitating illness) do not return. These are logical arguments and easily understood. The geographic region is interesting because it represents the suburban Chicago area. It appears that teachers tend to leave teaching altogether if they leave a suburban

teaching position. This is interesting because the higher salaries in the state are paid to suburban Chicago teachers. However, salary does not predict either attrition or reentry. Possibly, teachers who leave the suburban schools may get opportunities to use their language skills in international corporations or businesses and leave for those types of jobs. This factor needs further investigation, but it is interesting to note that the model predicts the Illinois foreign language teacher workforce loses teachers who leave suburban schools. A variable that almost reaches significance is the length of the contract. The model predicts that teachers who have a nine month contract exit and remain outside of teaching in downstate Illinois. Perhaps longer contract terms, such as those used by the state of Tennessee with their career ladder, would entice teachers to return. However, 10 month contracts only suggest a 58% probability that teachers would return. It should be noted that the sample was pretty evenly divided between teachers having 9 month and 10 month contracts. This could signal that even summer vacation plays little role for teachers deciding to no longer teach foreign languages.

Foreign language teachers who have masters' degrees tend to return to teaching if they once left. The model suggests teachers' probability of returning at a low 38%. Obviously, if teachers further their educational status, they have the opportunity to earn more money. Additionally, their time and effort to improve their instructional skills may be enhanced and they return with new ideas and a different perspective. Although salary did not contribute to the model, there is no variable that includes teachers feelings about their skills and what the master's degree provides. These factors might prove to be valuable. An interesting variable that almost reaches significance is the baccalaureate degree. Those teachers who received their four year degree from an institution with only a master's level program tended to return. This is interesting, but further qualitative data from both the institution and the teacher need to be investigated to clarify the variable's relevance.

The exploration of other variables did not produce any significant findings. The model fits the data base; however, the results are not too discriminating.

What is most striking in the data analysis are the variables that do not predict attrition and, for that matter, returning to teaching in downstate Illinois. Neither salary nor specific language taught predicts attrition or return to teaching. Although one might suspect these two particular variables to have some impact, the logistic regression fails to show their significance in the model. Other variables such as voluntary attrition, sex, race, percent time employed, highest degree also fail to show relevance to attrition. Geography location predicts suburban teachers leave, but fails to enlighten the models about other regions within the state. And age only signals that the older foreign language teachers are, the more likely they will leave and not return. There is no evidence that supports a certain age group would return.

Foreign language teacher attrition was studied because there is little information concerning why they leave. With the impending shortage of language teachers nationwide (Draper, 1989; Kleinsasser, 1989; National Center for Educational Statistics, 1988), this project was attempted to test the efficacy of existing data. Suggested theories, tests, and models were attempted and, although the analysis was informational and the data interesting, the description of attrition, in general, and foreign language teacher attrition, in particular, remains woefully incomplete.

The Illinois data base does have plenty of information (including enrollment and pupil/teacher ratios), but the information, at present, cannot be qualified and/or extended. Furthermore, as mentioned earlier, teachers do not complete the Teacher Service Record; administrators and secretaries complete the form. Teachers' perceptions and experiences are a vital missing piece of not only a foreign language teacher attrition data base, but a general teacher attrition data base. Additionally, class size figures could not be disaggregated at the foreign language classroom level. Any mean class size of the school or district used in this specific analysis would not have been prudent. It is surprising that various data bases to collect similar data (including information about certifications, education, work history and enrollment) are being developed across states (e.g., Northeast Common Market). These data may help describe the teachers who leave, but it will probably produce still other unsatisfactory models. In fact, the latest attempt by the National Center for Educational Statistics to collect adequate attrition data for the Schools and Staffing Survey was unsuccessful (Gilford and Tenenbaum,1990). Moreover, aggregation and disaggregation issues need to be studied and validated. Many information pieces cannot automatically be considered in subject matter specific analyses. Data analysis at this level will be cumbersome, especially when it comes to data collection (i.e., what was the specific class size of the teacher who left? what was the teachers' specific credentials? what type of collegiality did the attritioned teacher have in the school/district/state? etc.).

Having now worked with a data base that is typical of other data bases and touted as one of the more adequate ones, it is hardly surprising there are problems associated with attrition data sets and analyses. The termination of such data bases is not advocated; however, efforts to develop and qualify other ideas, variables, and data collection strategies to aid the modeling process must be reviewed, attempted, and completed. A good place to start are the suggestions by Gilford and Tenenbaum (1990) where the quality of data needs are addressed. They mention school system factors that affect quality, hiring practices, school practices related to time use, class size, teaching load, level of autonomy, opportunities for collaboration and decision making, teacher assignment or misassignment, and qualification of teachers as some of the more valuable information that can better serve attrition models (see pp. 166-168). Furthermore, analyses of subject specific fields, such as

this one, can offer insights as to what is available, what the available information tells the profession, and what yet needs to be completed to understand attrition more thoroughly.

There needs to be various ways to collect, analyze, and interpret attrition data, especially in the case of foreign languages where time is of the essence to become competent foreign language users and teachers. More precise attrition studies could hold the key to better understand how qualified foreign langauge teachers can be retained instead of leaving. Such investigations need to be codified and reported whether they are successful or not. Unsuccessful attempts probably have as much to teach the profession as successful ones. Eisner eloquently suggests, "[I]t is far more liberating to live in a world with many different paradigms and procedures than in one with a single official version of the truth or how to find it" (p.48). Undoubtedly, those interested in attrition analysis need to consider quantitative and qualitative information to build more successful and liberating attrition models.

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Figure 1

ATTRITION--FOREIGN LANGUAGE

Downstate Illinois Foreign Language Teachers, 1984-85 through 1989-90

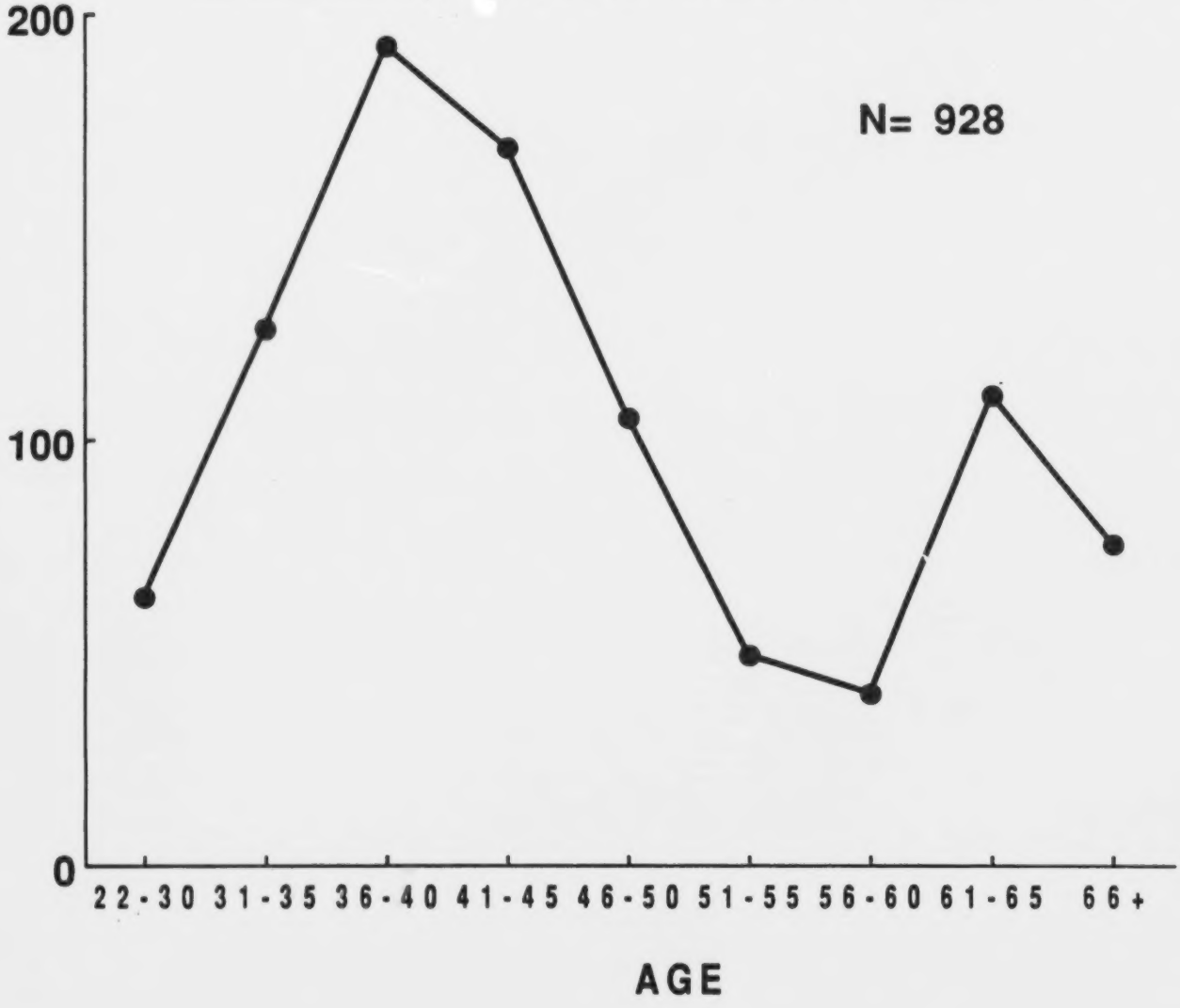
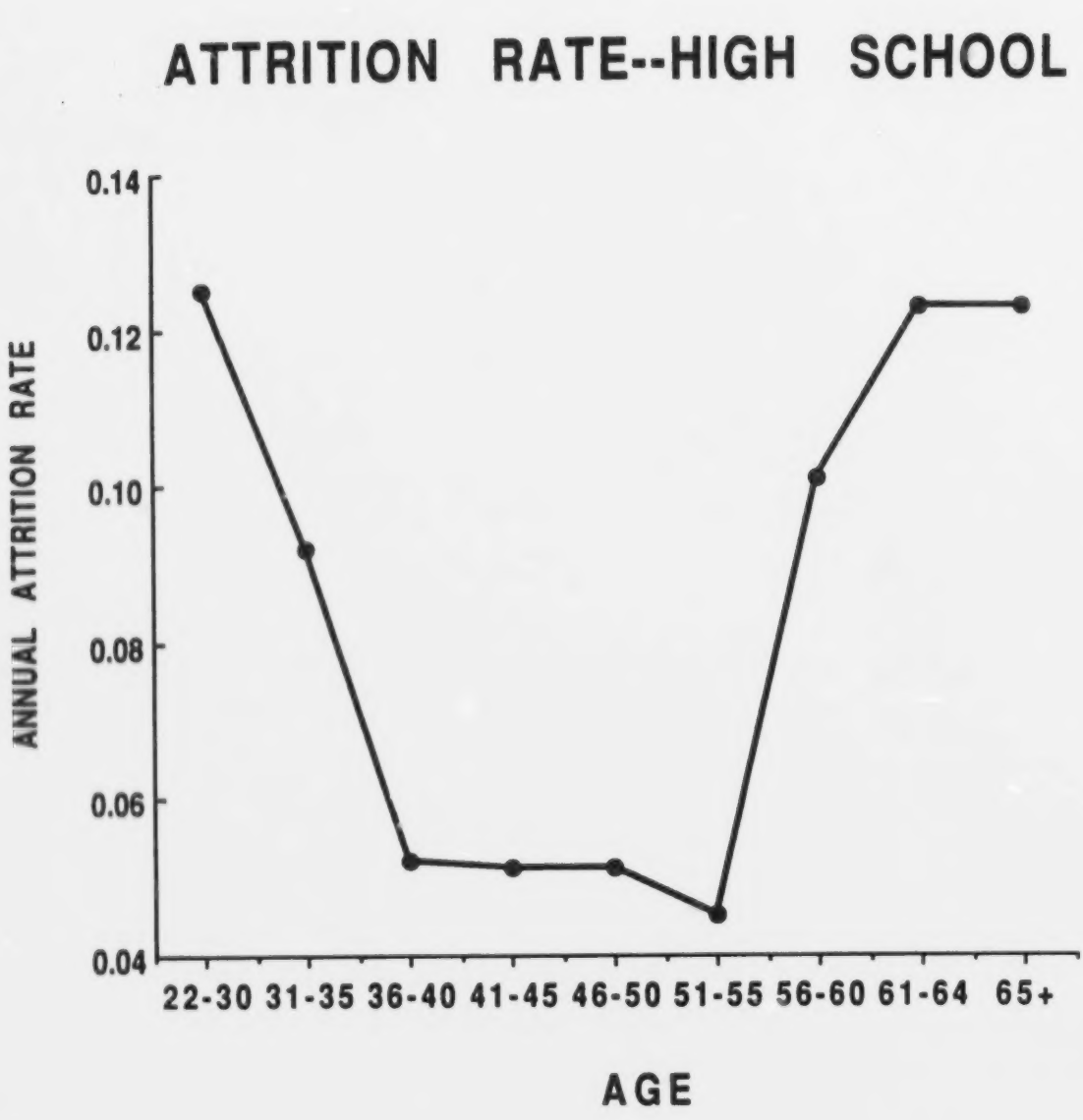


Figure 2



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